

## CLAIMS

1. In a communication system, a method for automatically downloading applications to a mobile terminal, comprising the steps of:
  - a) providing an adaptable terminal having a location module and a download module,
  - b) determining the geographic location of said terminal using a spatial location application in communication with said location module,
  - c) selecting a geographic location for downloading an application to said terminal
  - d) querying said terminal for available modes and applications,
  - e) querying the download servers in the selected geographic location for available applications, and neighboring locations for matching modes to determine whether said download servers support the mobile terminal available modes,
  - f) selecting a mode component for the mobile terminal from a service provider based on the query that matches attributes of the mobile query,
  - g) downloading the selected mode component to the mobile terminal from a selected service provider,
  - h) registering the mode component with the service provider to enable use of the download component in the mobile terminal,
  - i) reconfiguring the mode personality of the mobile terminal based on the downloaded components.

2. The method in accordance with claim 1 wherein the spatial location application is a location server.

3. A system for automatically downloading radio or protocol personalities over defined channels to a mobile terminal in a wide area network, the system comprising:

an adaptable terminal, a spatial location service for providing geographic location information to said terminal, at least one component repository, and a download server,

the component repository including at least one downloadable component and further including a service template that defines the service attributes of said downloadable component,

said adaptable terminal including a location module in communication with the spatial location service to define the geographic location of the mobile terminal,

the terminal further including a User Agent for locating downloadable components in the defined geographic location using a service request that enumerates the service needs of mode attributes,

the server directory including a listing of service templates of component repositories in a defined geographic location and a Service Agent for communicating with said component depositories and User Agents,

wherein said User Agent queries said Service Agent in the defined geographic location and neighboring locations to locate service components that match the terminals service need attributes such that when a matching component is located said terminal automatically downloads said component to said terminal.

4. An adaptable terminal for automatically downloading applications, the terminal comprising:

- a user interface,
- a location module ,
- a download module for locating downloadable components for a selected location,
- a protocol module,
- an air interface module for enabling remote transmission,
- a reconfiguration module; and
- a download cache.

5. The adaptable terminal in accordance with claim 4 wherein said adaptable terminal is a Software defined Radio terminal.